RDCH 710
Homeowork 3
Assigned 7 October 2009, Due 14 October 2009

1. What are some of the uses of actinium?
2. What Th isotopes can be naturally found in nature?
3. What is the main route for the industrial separation of Th from the lanthanides?
4. Provide two routes for the formation of Th metal.
5. What is the phase transition temperature for Th metal?
6. What compounds are expected to form when a mixture of 60 atom % Si in Th is heated to 1600 K?
7. What are trends in the Th halide compounds?
8. Why is Th the least hydrolyzable tetravalent actinide?